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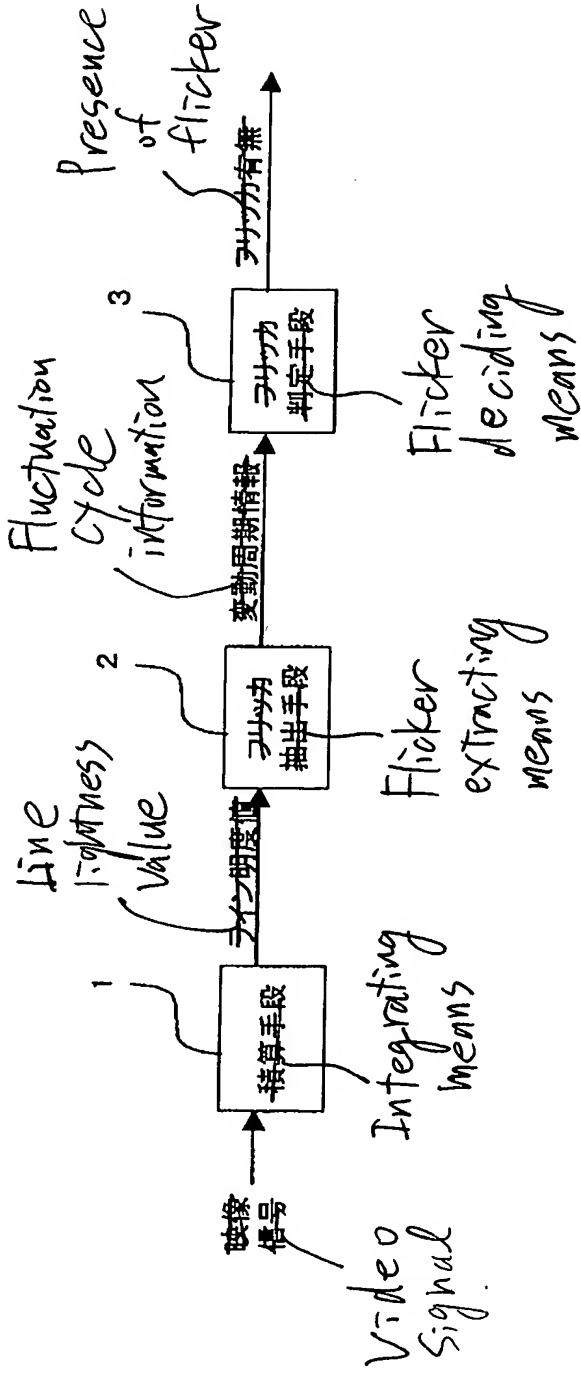


Fig. 1

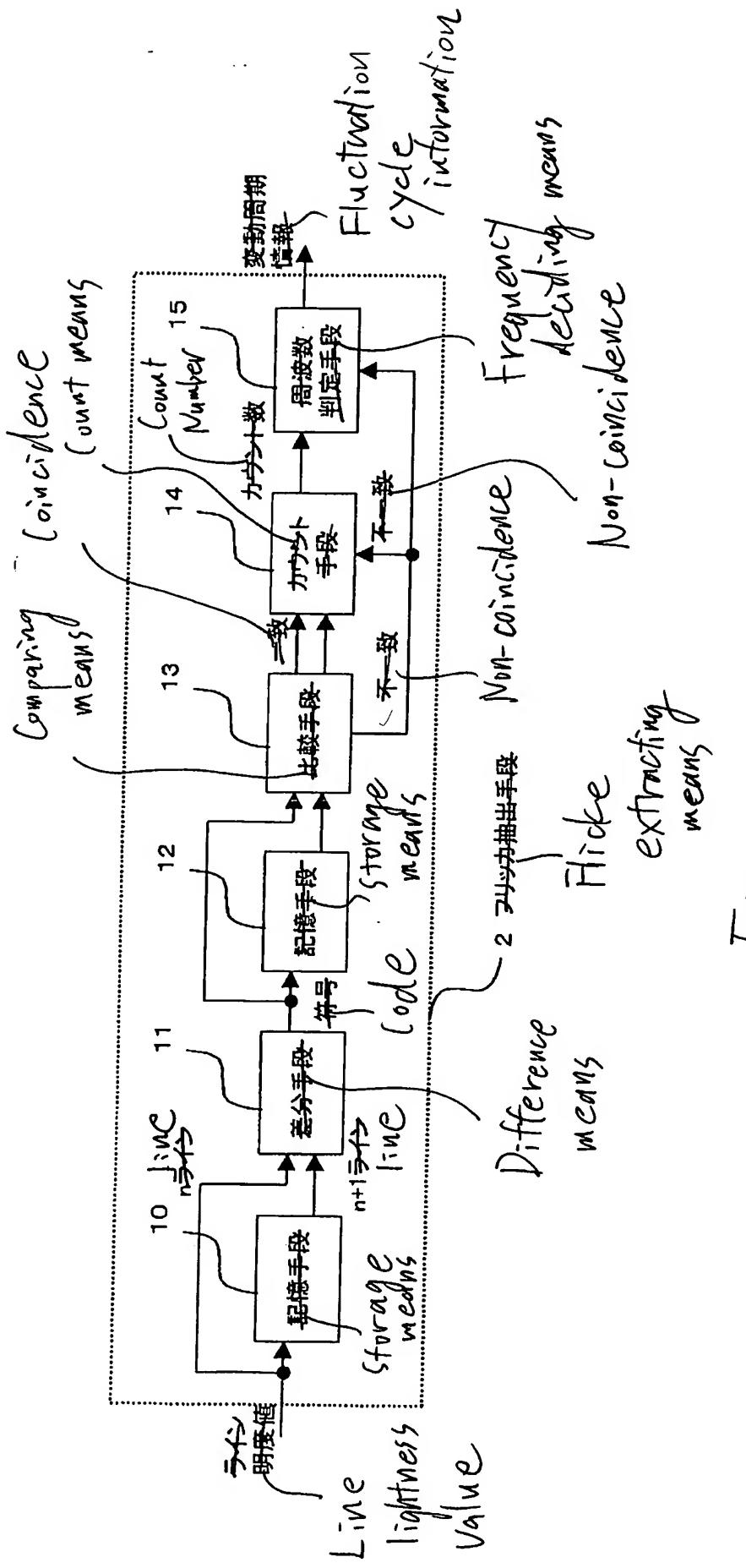


Fig. 2

Fig. 3

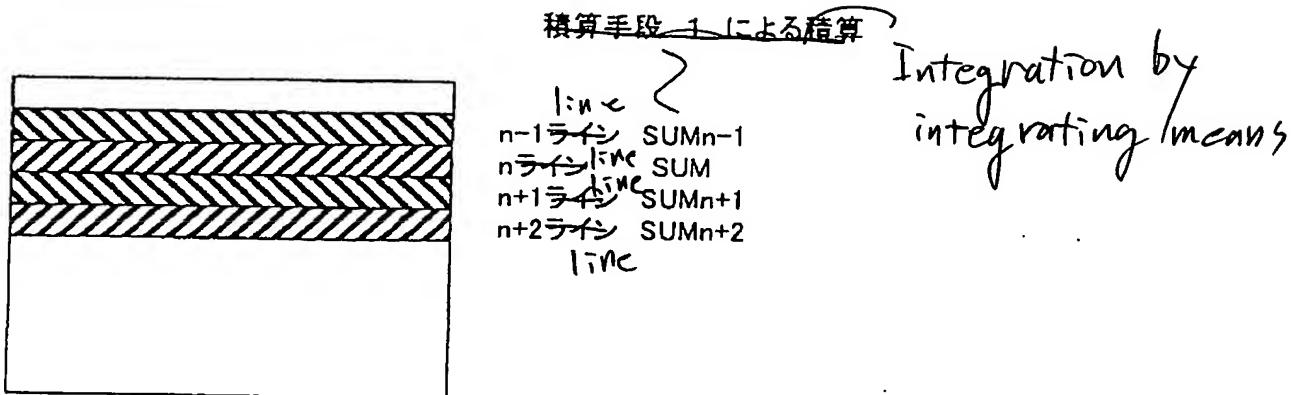


Fig. 4

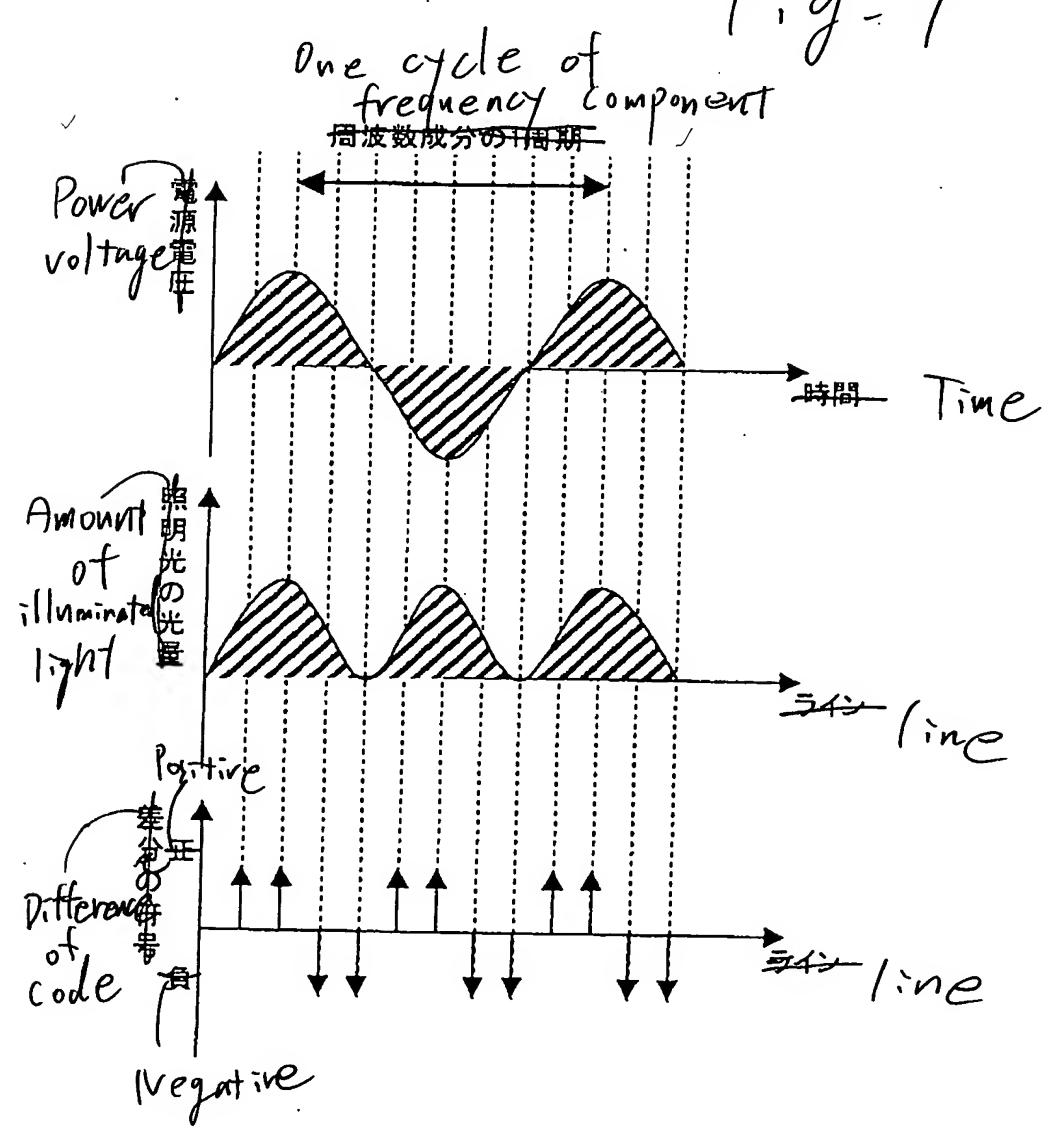
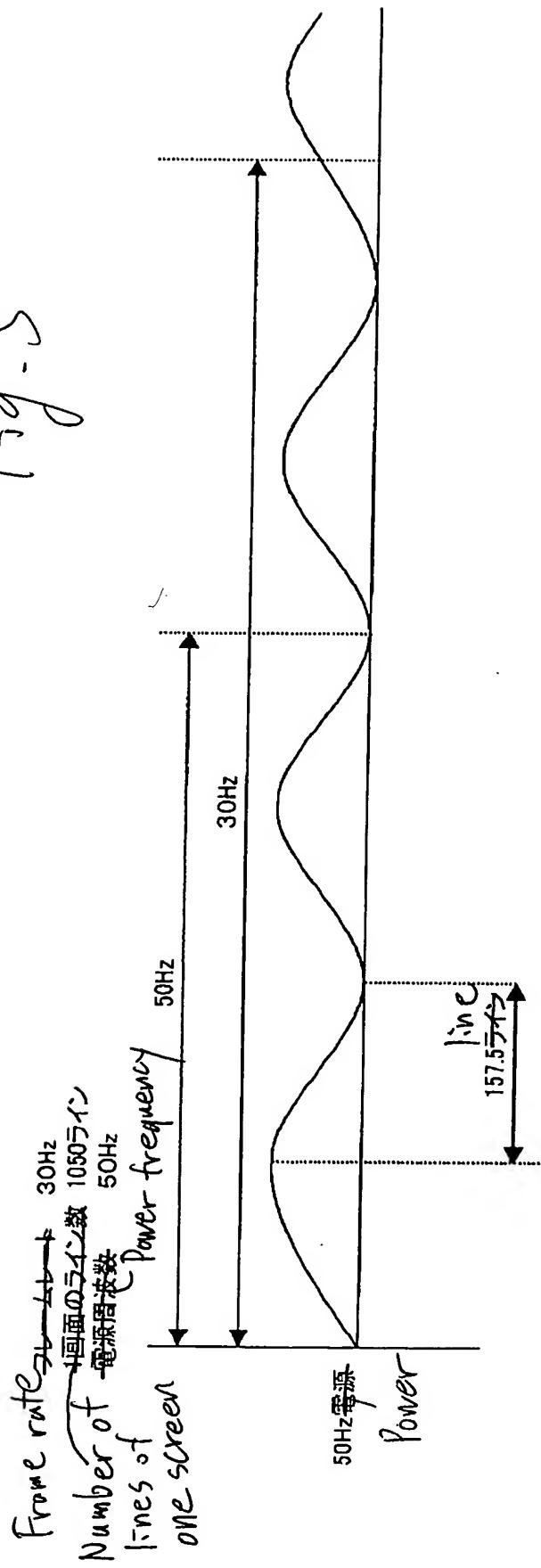


Fig. 5



$$\begin{aligned}
 \text{frame rate} &= \frac{1}{\text{周期}} = \frac{1}{0.0333} = 30 \text{Hz} \\
 \text{Horizontal synchronizing frequency} &= \frac{1}{\text{周期}} = \frac{1}{0.0063} = 157.5 \text{Hz} \\
 \text{Flicker cycle} &= \frac{\text{周期}}{\text{同期周波数}} = \frac{0.0333}{157.5} = 0.000212 \text{秒}
 \end{aligned}$$

Number of code change points for one cycle \times Power frequency

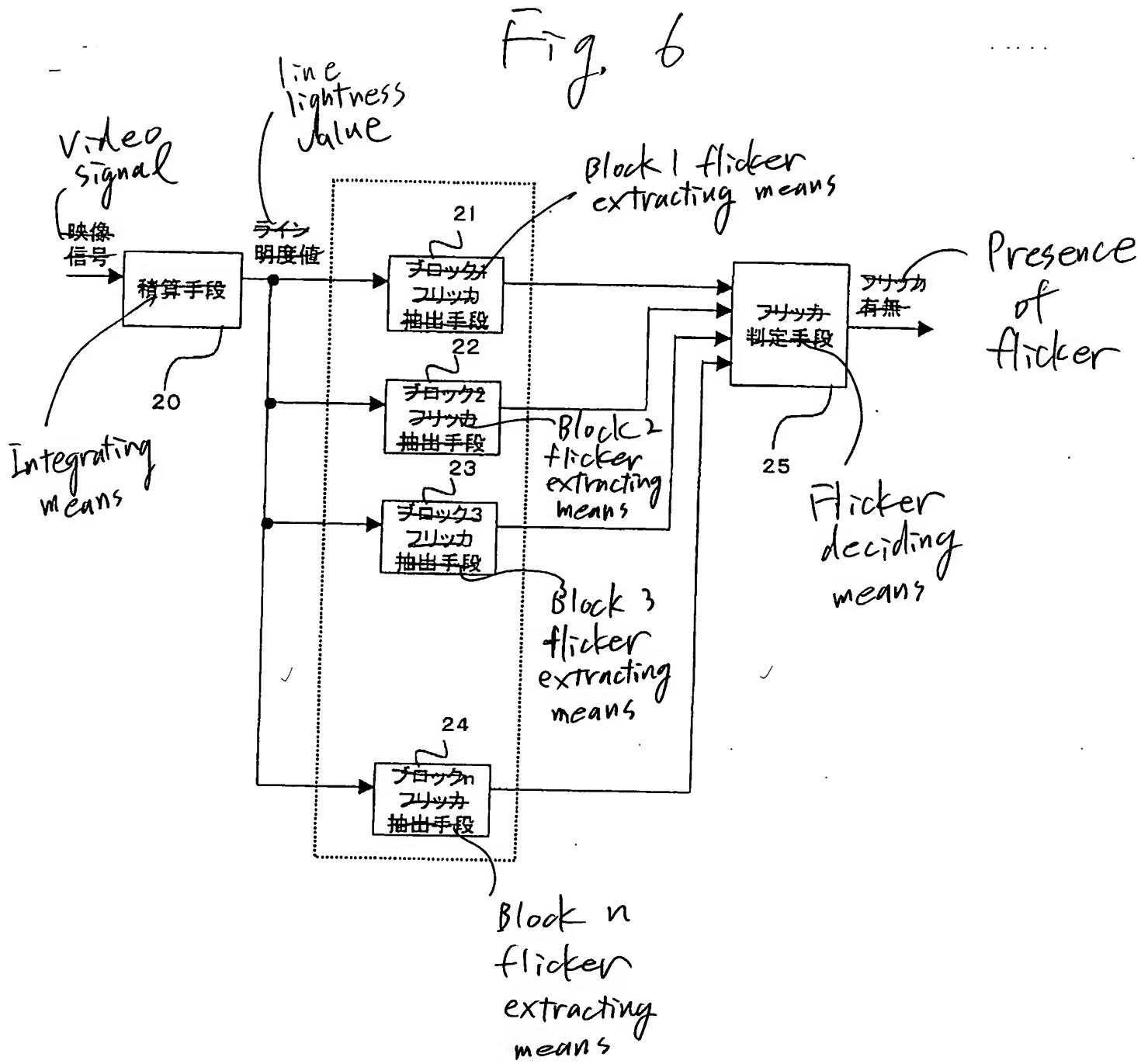
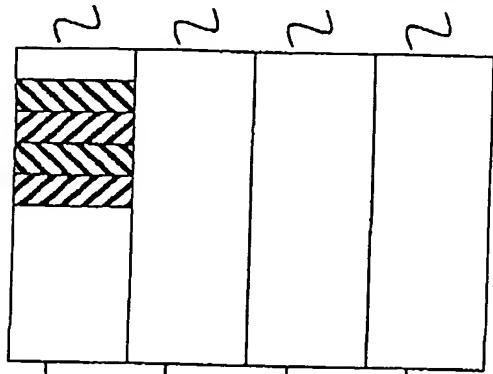


Fig. 7

Block 1 Block 2 Block 3 Block 4
 ブロック1 ブロック2 ブロック3 ブロック4



Block 1 flicker extracting means

ブロック1
フリッカ
抽出手段

Fluctuation cycle information
変動周期情報

Block 2 flicker extracting means

ブロック2
フリッカ
抽出手段

Fluctuation cycle information
変動周期情報

Block 3 flicker extracting means

ブロック3
フリッカ
抽出手段

Fluctuation cycle information
変動周期情報

Block 4 flicker extracting means

ブロック4
フリッカ
抽出手段

Fluctuation cycle information
変動周期情報

Ideal integrated value
with flicker
ブリッカのあるときの
理想積分値

No ideal waveform due
to luminance component
of image

画素の輝度成分による
理想波形にはならぬ、

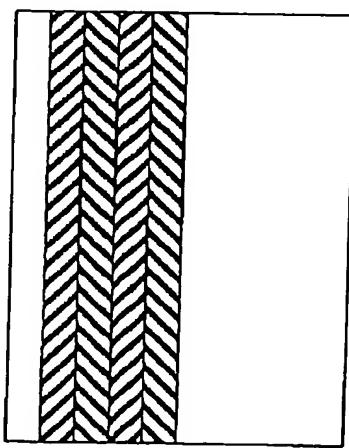


Fig. 8A

操作作が多い
Many malfunctions

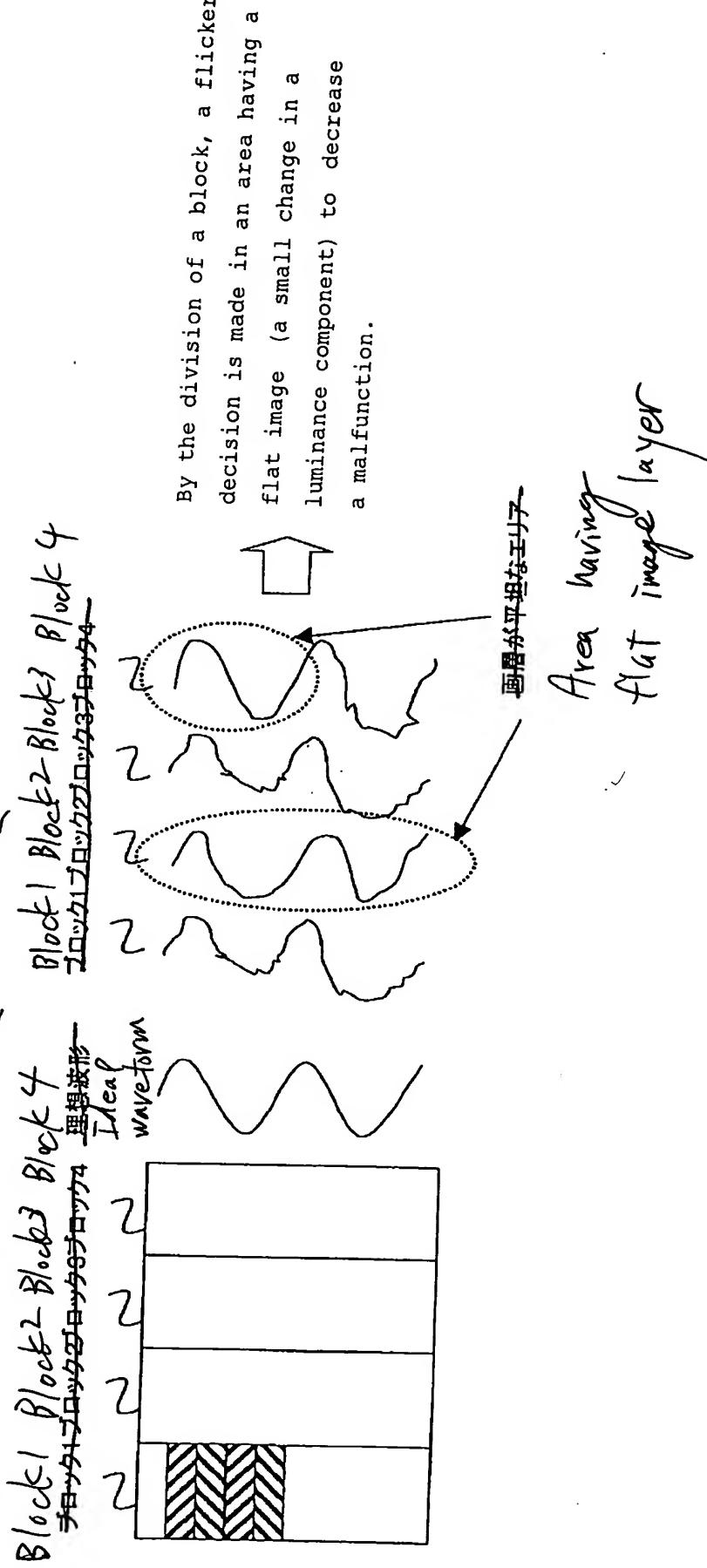
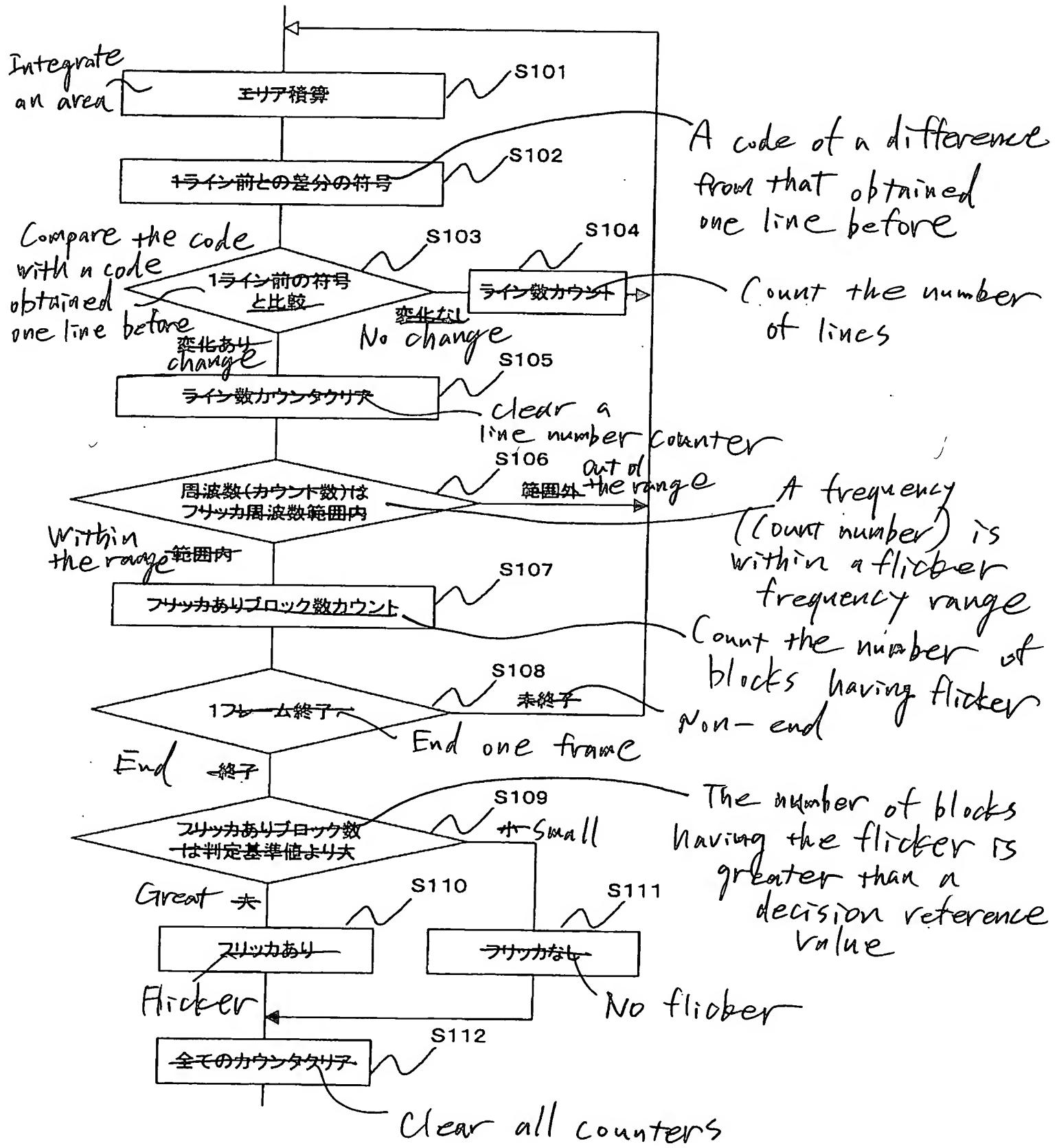


Fig. 9



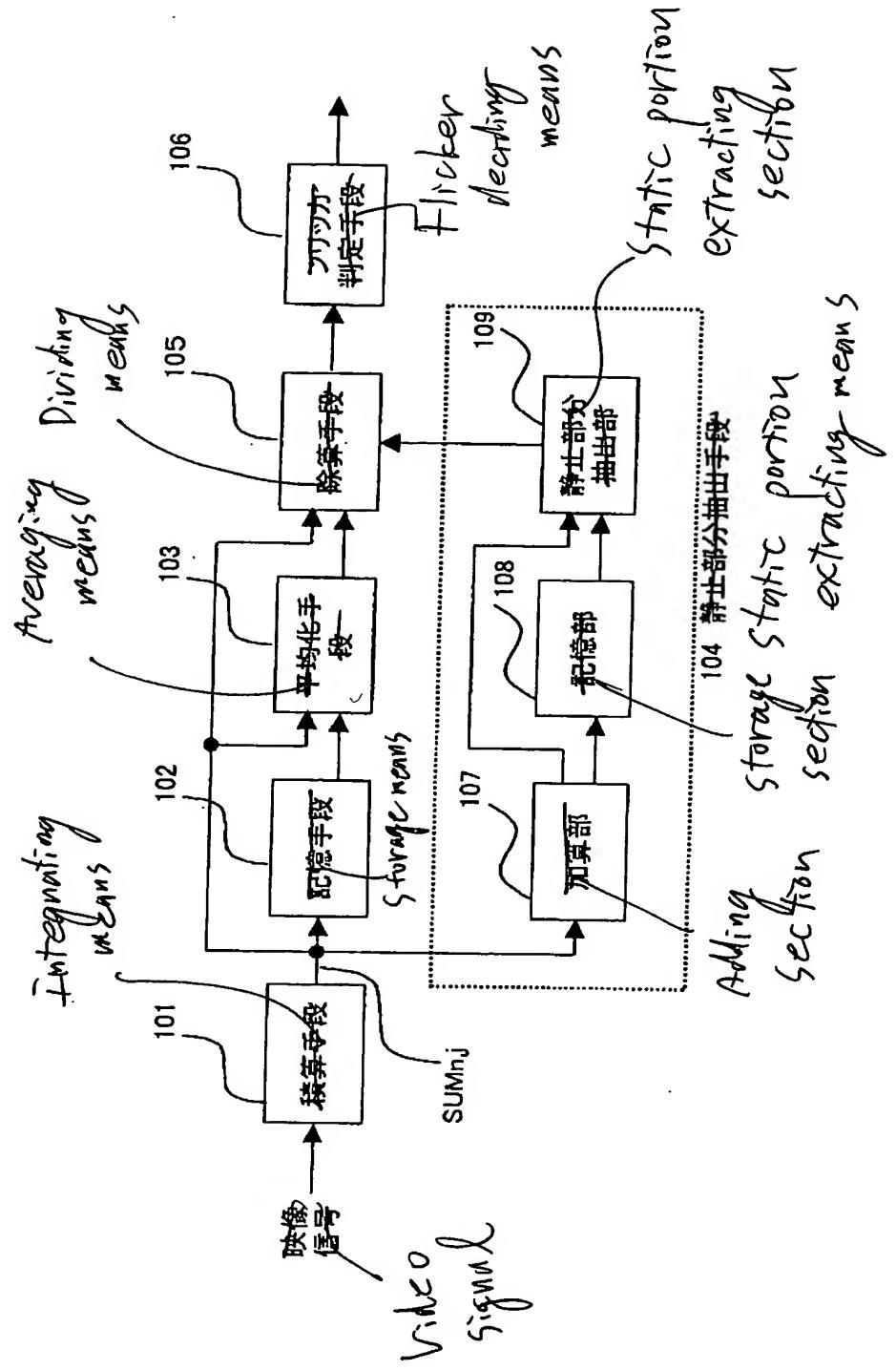
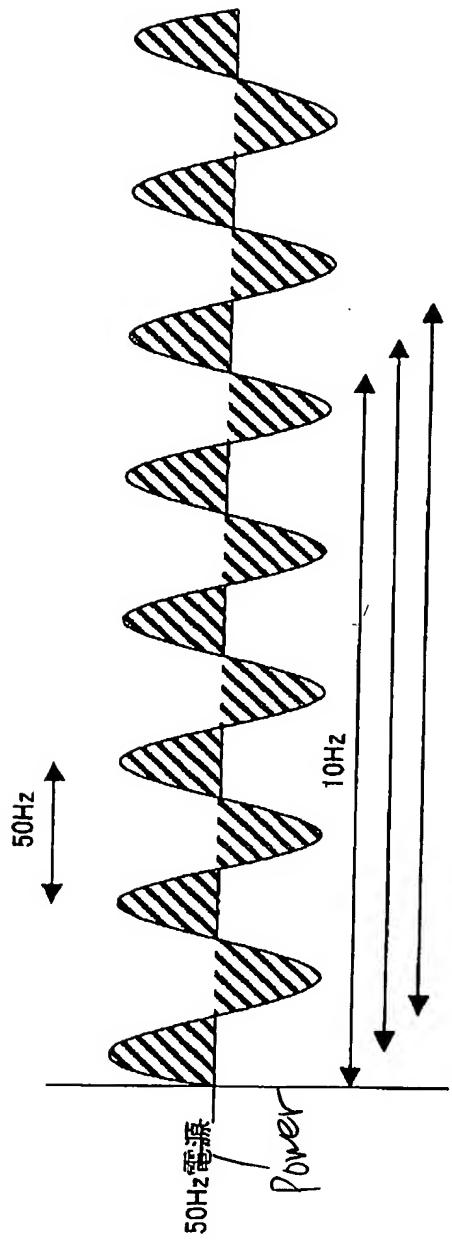


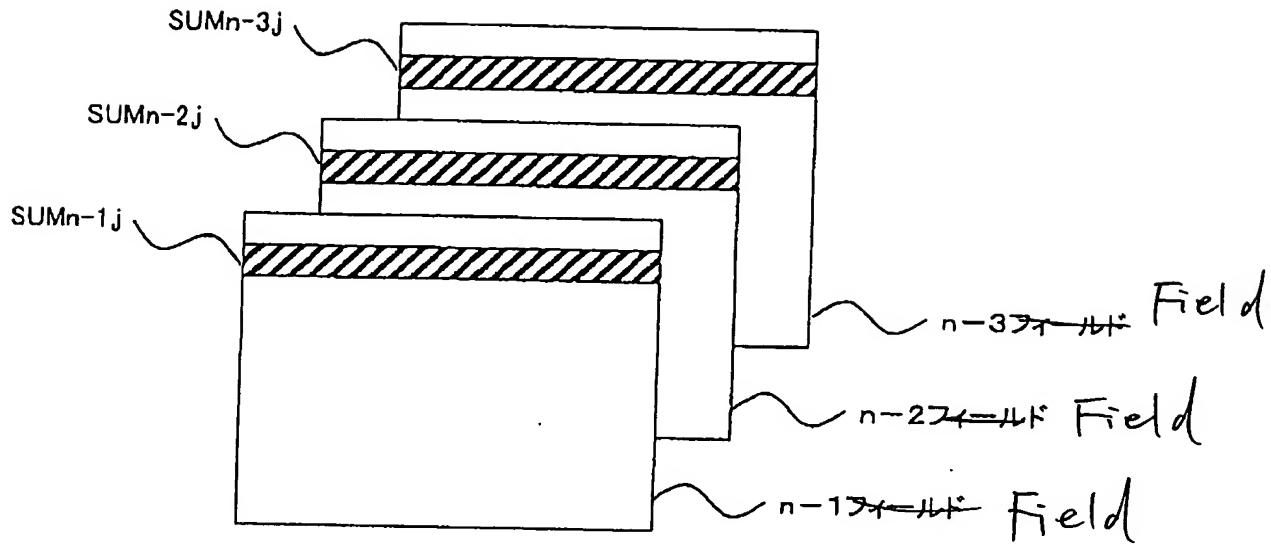
Fig. 10



In the case in which a frame rate is 30Hz at a power of 50Hz, an integration of three frames (10Hz) is equivalent irrespective of the sampling in any timing. Therefore, it is possible to remove a flicker component by the integration of three fields.

Fig. 11

Fig. 12



A signal obtained by averaging a predetermined area corresponding to a plurality of frames (three frames in a conventional example) has no flicker component.

$$AVEn_j = (SUM_{n-1j} + SUM_{n-2j} + SUM_{n-3j}) / 3$$

Fig. 13

Divide an integrated value in a predetermined area by an average value between frames, thereby extracting a flicker component

$$\text{フリッカ成分} = \text{SUM}_{n-1,j} / \text{AVE}_{n,j}$$

Flicker component

